

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No.: 10/781,862
Attorney Docket No.: Q80021

REMARKS

A Supplemental Information Disclosure Statement was filed April 19, 2005. Applicant respectfully requests that the Examiner consider the Supplemental IDS when she next takes this application up for consideration.

In the present Amendment, independent claims 1 and 14 have been amended to make express what was implicit in the original claims, namely, that the compound (A) and the radical initiator (B) are separate and distinct compounds from each other. Section 112 support for this amendment is found, for example, in the original claims and corresponding disclosure, which described these two elements as separate components designated (A) and (B), respectively. Additional support may be found, for example, in the working Examples of the present application, in which the compound (A) and the radical initiator (B) are separate and distinct compounds. See, for example, Examples 1 through 23 in Table 2 at page 168 of the present specification.

New claims 16 and 17 have been added. These claims recite that the compound (A) has a -CO₂H group. They depend from independent claims 1 and 14, respectively. Section 112 support for new claims 16 and 17 may be found, for example, in original claims 4, 5, 6, 7 and 15.

Upon entry of the Amendment, which is respectfully requested, claims 1-17 will be pending.

Applicant notes with appreciation that claims 3 and 6 are indicated to be allowable if rewritten in independent form.

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In Paragraph No. 2 of the Action, claims 1, 2, 4, 5, 7 and 11-15 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Shimada et al (US 2002/0025489 A1).

The Examiner's characterization of Shimada and her reasoning in support of the rejection are set forth at pages 2-4 of the Action. One aspect of the Examiner's reasoning is the assertion that there is no requirement in the claim language that present components (A) and (B) have to be two separate compounds.

Applicant submits that the rejection should be withdrawn because Shimada does not disclose or render obvious the polymerizable composition of the present invention.

As discussed above, independent claims 1 and 14 have been amended to expressly recite that the compound (A) and the radical initiator (B) are separate and distinct compounds from each other. The effect of incorporating a compound (A) which causes at least one of decarboxylation and dehydration by heat and a separate radical initiator (B) which is different from compound (A) is to enhance sensitivity, as seen in the working Examples of the present application. As is described and shown in Examples 6 through 9 and Examples 17 through 19 in Table 2 at pages 168-169 of the specification, by combining radical initiator S-3, which is considered to be decarboxylated, with component (A), an enhancement in sensitivity was achieved. In the case where only the radical initiator (B) was employed as in Comparative Example 1, the result in sensitivity was low. Accordingly, the polymerizable composition of the present invention, in contrast to Shimada, achieves high sensitivity by separately incorporating component (A) of the present invention into the composition.

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In addition, component (A) of the present invention has a development-promoting effect for an alkaline developer, and it is possible to adjust sensitivity and developability by controlling the addition ratios of the component (A) (for example, the compound represented by Formula (A-1)) and (B) (exemplified by an onium initiator).

There is an additional, independent reason for patentability of claims 4, 5, 7 and 15 over Shimada. These claims require that the compound (A) have at least one group represented by Formula (I) or Formula (I-2) shown in the claims. Formulas (I) and (I-2) have a -CO₂H group. In contrast, the compound relied upon by the Examiner is a salt having a -COO⁻ group with a corresponding cation. The Examiner will kindly note upon reviewing the examples of the compounds of Formula (I) in the present specification, that none of them are depicted as ions.

Applicant submits that a -CO₂⁻ ion (carboxylic acid ion) and a -CO₂H group (carboxylic acid group) are different in structure and completely different in function. The difference is considered to affect the permeability of the fountain solution during printing. Since a carboxylic acid ion -CO₂⁻ is ionic (hydrophilic), while a carboxylic acid group -CO₂H is anionic (and presumably would be considered hydrophobic as compared with -CO₂⁻), the permeability of the fountain solution is larger for Shimada (which employs -CO₂⁻) than for component (A) of the present invention (-CO₂H). Thus, by introducing a compound that is decarboxylated and/or dehydrated by heat as component (A) of the present invention in the form of a -CO₂H group (carboxylic acid group) into the photosensitive material, the permeation of the fountain solution into the cross-linked film during printing can presumably be suppressed. This in turn suppresses or reduces strength impairment of the cross-linked film. Further, since the -CO₂H (carboxylic

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acid) form is readily hydrolyzed in an alkaline developer, the material is excellent also in terms of developability and smudge resistance. For these reasons, it is believed that the further addition of an ingredient in -CO₂H (carboxylic acid) form according to the present invention is effective.

With respect to present claims 7 and 15, the Examiner will kindly note that the Formula (I-2) includes a -CO₂H group, whereas in contrast the onium salt (II-9) of Shimada has a -CO₂⁻ group.

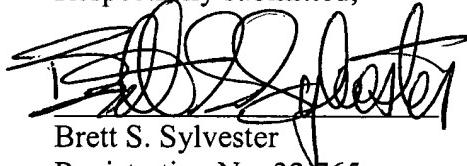
In view of the above, Applicant submits that the rejection of claims 1, 2, 4, 5, 7 and 11-15 based on Shimada '459 should be reconsidered and withdrawn.

In Paragraph No. 4 of the Action, claims 8-10 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Shimada.

Applicant submits that this rejection should be reconsidered and withdrawn for the same reasons that the rejection of claim 7 based on Shimada should be reconsidered and withdrawn. Claims 8-10 depend from claim 7 and are patentable over Shimada et al for at least the same reasons as claim 7.

Allowance is respectfully requested.

Respectfully submitted,



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